



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,539	10/11/2000	Jeff Schulz	FORE-81	5750

7590 10/03/2006

Ansel M Schwartz
One Sterling Plaza
201 N Craig Street Suite 304
Pittsburgh, PA 15213

EXAMINER

NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
----------	--------------

2616

DATE MAILED: 10/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/686,539

Applicant(s)

SCHULZ, JEFF

Examiner

Christine Ng

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 9 is/are rejected.
- 7) ☒ Claim(s) 2-8 and 10-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,878,039 to Gorshe et al in view of U.S. Patent No. 6,707,789 to Arslan et al.

Gorshe et al disclose in Figure 1 a switch of a network for switching data comprising a fabric (Elements 34, 36, 38, 40, 46 and 52) for switching the data and a parity fabric (Elements 30 and 32). The switch also contains a connection mechanism (Element 9) connected to the fabric (Elements 34, 36, 38, 40, 46 and 52) for providing data to and from the fabric (Elements 34, 36, 38, 40, 46 and 52) and connected to the parity fabric (Elements 30 and 32) for providing parity data to and from the parity fabric (Elements 30 and 32). Refer to Column 3, lines 21-28.

The switch comprises a first port card (Element 10) which receives data from the network. "Bytes of data flowing into the interface unit are input immediately into the input port data latches 30,32 which receive data through their respective input ports 10 and 12" (Column 7, lines 28-31). The first port card (Element 10) performs first parity calculations on the data received at the first port card (Element 10) and produces first parity data from the first parity calculations. The input port latch (Element 30) of the first

Art Unit: 2616

port card (Element 10) "contains a parity check circuit which provides indications at the Parity Error outputs that parity errors have occurred" (Column 7, lines 37-39). Refer to Column 7, lines 28-48. The first port card (Element 10) is connected to the connection mechanism (Element 9) to send data to the fabric (Element 34, 38 and 46) at the connection rate and to send the first parity data to the parity fabric (Element 30) at the connection rate. The input port accepts data at a first payload data rate and the output port outputs data at a second payload data rate. Refer to Column 6, lines 25-31. As shown in Figure 4, the input port receives data at 38.88 Mbps but can switch data rate to 19.44 Mbps as the data travels through the switch fabric.

The switch comprises a second port card (Element 12) which receives data from the network. "Bytes of data flowing into the interface unit are input immediately into the input port data latches 30,32 which receive data through their respective input ports 10 and 12" (Column 7, lines 28-31). The second port card (Element 12) performs second parity calculations on the data received at the second port card (Element 12) and produces second parity data from the second parity calculations. The input port latch (Element 32) of the second port card (Element 12) "contains a parity check circuit which provides indications at the Parity Error outputs that parity errors have occurred" (Column 7, lines 37-39). Refer to Column 7, lines 28-48. The second port card (Element 12) is connected to the connection mechanism (Element 9) to send data to the fabric (Elements 36, 40 and 52) at the connection rate and to send the second parity data to the parity fabric (Element 32) at the connection rate. The input port accepts data at a first payload data rate and the output port output data at a second payload

Art Unit: 2616

data rate. Refer to Column 6, lines 25-31. As shown in Figure 4, the input port receives data at 38.88 Mbps but can switch data rate to 19.44 Mbps as the data travels through the switch fabric. The second port card (Element 12) also separates the data into streams of data that together equal the data received at the second port card that are sent concurrently at the connection rate to the fabric (Elements 36, 40 and 52) and combines the data streams received at the connection rate into data that is sent to the network. The input port latch (Element 32) of the second input port (Element 12) handles "20 bits of data in parallel as a 10-bit high byte and a 10-bit low byte" (Column 7, lines 34-35). Data is outputted to the corresponding output port (Element 16) as a 9-bit high byte and a 9-bit low byte. Refer to Column 3, lines 16-21.

Gorshe et al do not disclose that the first input port card receives data at a first rate and the second input port card receives data at a second rate different from the first rate.

Arslan et al disclose in Figure 1 a SONET switch (Element 100) coupled to line interface units 104, 114 and 124. Each line interface unit 104, 114 and 124 has ports that can handle different OC-N data rates. Each "interface unit in a SONET DCS contains one or more external system transmission interfaces that can handle different data rates". The "SONET DCS is used to multiplex and groom SONET payloads across the different SONET line rates". Refer to Column 1, lines 23-61. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the first input port card receives data at a first rate and the second input port card receives data at a second rate different from the first rate. One would have

Art Unit: 2616

been motivated to do so so that the switch can support different rates since different telecommunication systems require different bit rates; thereby allowing the switch to accommodate more applications.

Allowable Subject Matter

3. Claims 2-8 and 10-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

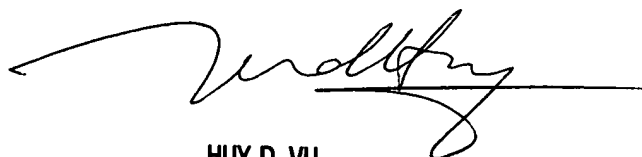
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C. Ng 
September 12, 2006



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600